

7. Release B Acceptance Test Overview

7.1 Release B Capabilities

The Earth Observing System (EOS) Data and Information System (EOSDIS) Core System (ECS) capabilities are developed in terms of four formal releases. Release B is the second formal ECS release to be fielded to ECS sites. It builds on the capabilities verified in the acceptance testing of the first formal release (Release A) to provide capabilities that are designed to support the AM-1 and Landsat-7 missions. Release A capabilities included those necessary to fully support the scheduled launch and ongoing operations for Tropical Rainfall Measurement Mission (TRMM), interface testing for Landsat-7, and command and control interface testing for AM-1. Release A supported certain data operations at the EOS Operations Center (EOC), System Monitoring & Coordination Center (SMC) and four Distributed Active Archive Centers (DAACs). The DAACs that are activated for Release A are located at Goddard Space Flight Center (GSFC), Marshall Space Flight Center (MSFC), Langley Research Center (LaRC), and the EROS Data Center (EDC).

Release B expands those capabilities established in Release A by providing full functionality and services required for AM-1 launch and data operations, for supporting Landsat-7 operations, and for providing on-going support for TRMM. Release B also provides capabilities to support the COLOR, ADEOS II, RADAR ALT, ACRIMSAT, and METEOR missions. In addition, Release B also provides the means by which ECS users may gain access to and receive Synthetic Aperture Radar (SAR) products from the ERS-1, ERS-2, JERS-1, and the RADARSAT missions, which are processed and archived at the Alaska SAR Facility.

Release B is deployed to the full complement of nine DAACs. Only eight of these sites are involved in the acceptance testing of the Release B. These sites are the original sites where the ECS was deployed in Release A; which are the EOC, SMC, and the DAACs at GSFC, MSFC, LaRC and EDC; plus four newly commissioned sites. The newly commissioned ECS DAAC sites are the National Snow and Ice Data Center (NSIDC), Jet Propulsion Laboratory (JPL), Oak Ridge National Laboratory (ORNL), and the Alaska SAR Facility (ASF).

Release B software is also delivered to the Socio-Economic Data and Applications Center (SEDAC), at the Consortium for International Earth Science Information Network in Saginaw, Michigan. Release B is not acceptance tested at the SEDAC site.

7.2 Release B Acceptance Test Approach

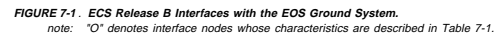
Acceptance testing verifies system compliance to Level-3 requirements by focusing on the objectives and capabilities specified for Release B. These capabilities are tested for functionality and performance within the boundaries of the interfaces defined for the release. The external boundary of ECS is typically at communications, data medium or graphic interfaces. For communications, these interfaces act as conduits through which input (e.g. Level-0) and output (e.g. Level-1, Level-2, etc.) data, and stimuli (commands, requests, etc.) and responses

(acknowledgments, data, etc.) flow. The communications interfaces verified in the Release B include National Aeronautics and Space Administration (NASA) Science Internet (NSI), NASA Communications (NASCOM) Operational Local Area Network (NOLAN), and EOSDIS Backbone Network (EBnet) where they terminate at the applicable ECS sites. At the ECS, these interfaces are physically located at the SMC and EOC; and the ECS GSFC, MSFC, LaRC, EDC, NSIDC, JPL, ORNL, ASF, and SEDAC DAAC sites. The communications networks that are connected to the ECS terminate at two classes of external systems: data providers (whose data are later referred to as push data) and data users (whose requests result in what later are referred to as pull data). The data providers for Release B are the Sensor Data Processing Facility (SDPF), ECS Data and Operation System (EDOS), Flight Dynamics Facility (FDF), Network Communications Center (NCC), the Landsat Processing System (LPS), the NOAA ADC, the TRMM Science Data and Information System (TSDIS), the EOSDIS Version 0 system, the processing facility at the ASF, and the sources of Level-0 data for COLOR, ADEOS II, RADAR ALT, ACRIMSAT, the METEOR missions, and the ASTER GDS. The data users for Release B are the science user community connected to the eight DAACs, the SCFs, and the ASTER GDS.

Figure 7-1 depicts the inter-connection of individual ECS sites with external systems, and internal ECS connectivity for routine mission related operations. Normal ECS connectivity to support DAAC-to-DAAC interoperations are omitted from the figure to improve clarity.

Acceptance testing of interfaces for Release B verifies the capability of the ECS to communicate and transfer data over all external interfaces in accordance with the Functional and Performance Requirements Specification (F&PRS) for the ECS and the Interface Requirements Documents (IRDs) associated with each interface. Simulators are used for verifying external interfaces except in those cases where the system on the other side of the interface is mature and available to support the acceptance test when needed. Data content flowing across Release B interfaces include: AM-1 Level-0 data, and real time and routine TRMM data from SDPF and EDOS; ancillary data from FDF; schedule data to/from NCC, SDPF, and EDOS; Level-1 through Level-3 TRMM data from TSDIS; Landsat-7 Level-0, metadata and browse data from the Landsat-7 ground support elements; ASTER Level-1 data on magnetic tape from the ASTER GDS, selected Level-0 through Level-4 to the SCFs and the NOAA ADC, and a variety of radar data from the ASF. Other data include COLOR Level-0, ADEOS II SeaWinds Level-0, RADAR ALT Dual Frequency Altimeter (DFA) and Microwave Radiometer (MR) Level-0, Meteor SAGE III Level-0, and ACRIMSAT Level-0 data from presently undefined sources to selected ECS DAACs. A summary of the content and carriers associated with the data flowing across ECS interfaces is shown in Table 7-1. A more complete account of each external interface is found in Interface Requirements Documents 219/SE1-001 through 020.

Acceptance testing of the system within the boundaries of Release B verifies the capability of the ECS to provide AM-1 and Landsat-7 data operations while continuing to provide TRMM data operations and maintaining Version-0 inter-operability. Release B also verifies that requirements are met to provide ASTER GDS inter-operability. Table 7-2 summarizes Release B enhancement of capabilities over those provided in Release A on a site-by-site basis.



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Table 7-1. ECS Release B Interfaces (1 of 16)

Node	Mission	Source	Destination	Carrier/Media	Data Content	Reference
1	AM-1	NCC	EOC	NOLAN	TDRSS Schedule; and Real-Time Coordination.	222-TP-003-005 Release Content Description, 5/95, Section 5
2	TRMM	TSDIS	SMC at GSFC	EMail/Phone	Schedule Coordination & Adjudication for Data Exchange with DAACs; and Status Information	222-TP-003-005 Release Content Description, 5/95, Section 5 209-CD-007-002 ICD Between ECS and TSDIS, 5/95, Section 3
3	TRMM	TSDIS	ECS at the GSFC DAAC	Exchange LAN	VIRS Level-1A through Level-3 Data Products; Request For Ancillary/Correlative Data; and TRMM Product Delivery Schedules.	222-TP-003-005 Release Content Description, 5/95, Section 5 209-CD-007-002 ICD Between ECS and TSDIS, 5/95, Section 3
4	TRMM	TSDIS	ECS at the MSFC DAAC	EBnet	PR and TMI Level-1A through Level-3 Data Products; GV Data; Request For Ancillary/Correlative Data; and TRMM Product Delivery Schedules.	222-TP-003-005 Release Content Description, 5/95, Section 5 209-CD-007-002 ICD Between ECS and TSDIS, 5/95, Section 3
5	AM-1	Aster ICC	EOC	NSI	Planning; Scheduling ; Instrument Commanding; Coordination; and Status.	222-TP-003-005 Release Content Description, 5/95, Section 5
6	Landsat-7	Landsat-7 MMO	ECS at the EDC DAAC	Internet	Product Cost Information and System Management Status.	209-CD-013-001 ICD Between ECS and Landsat-7, 7/95, Section 3
7	COLOR	COLOR Source	ECS at the GSFC DAAC	TBD	COLOR Level-0 Data.	222-TP-003-005 Release Content Description, 5/95, Section 5
8	ADEOS II	ADEOS II GPS	ECS at the JPL DAAC	TBD	ADEOS II Level-0 SeaWinds; Non-Redundant AMSR Level-2; and Ancillary Data	604-CD-002-001 ECS Operations Concept for the ECS Project Part 2B - ECS Release B, 3/95, Section 5
9	Landsat-7	Landsat GDPS	ECS at the EDC DAAC	Local Network/Internet	Calibration Information; Level-0R Data; Level-0R Inventory Meta Data; and Level-0R Browse Data.	209-CD-013-001 ICD Between ECS and Landsat-7, 7/95, Section 3
10	Meteor	Meteor Source	ECS at the LaRC DAAC	TBD	SAGE III Level-0 Data;	222-TP-003-005 Release Content Description, 5/95, Section 5
11	Radar ALT	Radar ALT Source	ECS at the JPL DAAC	TBD	DFA & MR Level-0 Data.	604-CD-002-001 ECS Operations Concept for the ECS Project Part 2B - ECS Release B, 3/95, Section 5

Table 7-1. ECS Release B Interfaces (2 of 16)

Node	Mission	Source	Destination	Carrier/Media	Data Content	Reference
12	ACRIM	ACRIM Source	ECS at the LaRC DAAC	TBD	ACRIM Level-0 Data	222-TP-003-005 Release Content Description, 5/95, Section 5
13	TRMM	SDPF	ECS at the MSFC DAAC	NOLAN	LIS Level-0, Housekeeping, Expedited and Definitive Orbit Data.	222-TP-003-005 Release Content Description, 5/95, Section 5 305-CD-016-001 Release A MSFC DAAC Design Specification for the ECS Project 7/95
14	TRMM	SDPF	ECS at the LaRC DAAC	NOLAN	CERES Level-0, Housekeeping, Expedited Look and Definitive Orbit Data.	222-TP-003-005 Release Content Description, 5/95, Section 5
15	AM-1	EDOS	EOC	EBnet	Real-Time Telemetry; Expedited Telemetry, Status; and Accounting Data.	560-ICD-EDOS/EGS TCD Between EOS and EDOS and the EOC, SMC, GSFC, and the LaRC DAACs, 6/95, Section 3
16	AM-1	EDOS	SMC at GSFC	EBnet	Status; and Coordination Data.	604-CD-002-001 ECS Operations Concept for the ECS Project Part 2B - ECS Release B, 3/95, Section 5
17	AM-1	EDOS	ECS at the GSFC DAAC	EBnet	Level-0; Status; and Coordination Data.	305-CD-014-001 Release A GSFC DAAC Design Specification for the ECS Project, 7/95, Section 3
18	AM-1	EDOS	ECS at the LaRC DAAC	EBnet	Level-0; Status; and Coordination Data.	305-CD-015-001 Release A LaRC DAAC Design Specification for the ECS Project, Section 3
19	AM-1	EDOS	ECS at the EDC DAAC	EBnet	Level-0; Status; and Coordination Data.	222-TP-003-005 Release Content Description, 5/95, Section 5
20	AM-1	FDF	EOC	NOLAN	Orbit; and Attitude Information.	222-TP-003-005 Release Content Description, 5/95, Section 5
21	AM-1	FDF	ECS at the GSFC DAAC	NOLAN	Repaired & Refined Orbit and Attitude Information.	305-CD-014-001 Release A GSFC DAAC Design Specification for the ECS Project, 7/95, Section 3
22	AM-1	FDF	ECS at the LaRC DAAC	NOLAN	Repaired & Refined Orbit and Attitude Information.	222-TP-003-005 Release Content Description, 5/95, Section 5
3	AM-1	FDF	ECS at the EDC DAAC	NOLAN	Repaired & Refined Orbit and Attitude Information.	222-TP-003-005 Release Content Description, 5/95, Section 5

Table 7-1. ECS Release B Interfaces (3 of 16)

Node	Mission	Source	Destination	Carrier/Media	Data Content	Reference
24	AM-1	EOC	NCC	NOLAN	TDRSS Schedule Requests; and Real-Time Coordination.	222-TP-003-005 Release Content Description, 5/95, Section 5
25	AM-1	EOC	Aster ICC	NSI	Planning; Scheduling; Status; and Coordination.	222-TP-003-005 Release Content Description, 5/95, Section 5
26	AM-1	EOC	EDOS	EBnet	Command; Coordination; and Status.	222-TP-003-005 Release Content Description, 5/95, Section 5 560-ICD-EDOS/EGS TCD Between EOS and EDOS and the EOC, SMC, GSFC, and the LaRC DAACs, 6/95, Section 3
27	AM-1	EOC	FDF	NOLAN	Orbit; and Attitude Observation.	222-TP-003-005 Release Content Description, 5/95, Section 5
28	AM-1	EOC	SMC at GSFC	NOLAN	Status; and Coordination Data.	604-CD-002-001 ECS Operations Concept for the ECS Project Part 2B - ECS Release B, 3/95, Section 5 222-TP-003-005 Release Content Description, 5/95, Section 5
29	AM-1	EOC	ECS at the GSFC DAAC	NOLAN	AM-1 Spacecraft & Instrument Performance; and Command History Data.	222-TP-003-005 Release Content Description, 5/95, Section 5 305-CD-014-001 Release A GSFC DAAC Design Specification for the ECS Project, 7/95, Section 3
30	AM-1	EOC	MOPITT SCF	NSI	IST Toolkit Delivery; and Instrument Software Dumps.	222-TP-003-005 Release Content Description, 5/95, Section 5
31	AM-1	EOC	MISR SCF	NSI	IST Toolkit Delivery; and Instrument Software Dumps.	222-TP-003-005 Release Content Description, 5/95, Section 5
32	AM-1	EOC	CERES SCF	NSI	IST Toolkit Delivery; and Instrument Software Dumps.	222-TP-003-005 Release Content Description, 5/95, Section 5
33	AM-1	EOC	MODIS SCF	NSI	IST Toolkit Delivery; and Instrument Software Dumps.	222-TP-003-005 Release Content Description, 5/95, Section 5
34					Not Assigned	
35	AM-1	EOC	Other SCFs	NSI	IST Toolkit Delivery.	222-TP-003-005 Release Content Description, 5/95, Section 5

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Node	Mission	Source	Destination	Carrier/Media	Data Content	Reference
36	TRMM	SMC at GSFC	TSDIS	EMail/Phone	Schedule Coordination & Adjudication for Data Exchange with DAACs; and Status Information	604-CD-002-001 ECS Operations Concept for the ECS Project Part 2B - ECS Release B, 3/95, Section 5
37	AM-1	SMC at GSFC	EDOS	EBnet	Status; and Coordination Data.	604-CD-002-001 ECS Operations Concept for the ECS Project Part 2B - ECS Release B, 3/95, Section 5
38	AM-1	SMC at GSFC	EOC	NOLAN	Schedule & Status Information; Performance Monitoring & Analysis; WAN Management; and ECS Coordination.	604-CD-002-001 ECS Operations Concept for the ECS Project Part 2B - ECS Release B, 3/95, Section 5
39	All Missions	SMC at GSFC	All DAACs	EBnet	Schedule & Status Information; Performance Monitoring & Analysis; WAN Management; and ECS Coordination.	604-CD-002-001 ECS Operations Concept for the ECS Project Part 2B - ECS Release B, 3/95, Section 5
40					Not Assigned	
41	Landsat-7	ECS at the EDC DAAC	Landsat-7 MMO	Internet	Statistics; Reports; and System Management Status.	209-CD-013-001 ICD Between ECS and Landsat-7, 7/95, Section 3
42	TRMM	ECS at the GSFC DAAC	TSDIS	Exchange LAN	VIRS Level-1A through Level-3 Data Products for Reprocessing; and NMC Ancillary/Correlative Data.	604-CD-002-001 ECS Operations Concept for the ECS Project Part 2B - ECS Release B, 3/95, Section 5
43	COLOR	ECS at the GSFC DAAC	COLOR Source	TBD	Schedule; and Status Information.	604-CD-002-001 ECS Operations Concept for the ECS Project Part 2B - ECS Release B, 3/95, Section 5
44	AM-1	ECS at the GSFC DAAC	EDOS	EBnet	Status; and Coordination Data.	604-CD-002-001 ECS Operations Concept for the ECS Project Part 2B - ECS Release B, 3/95, Section 5
45	AM-1	ECS at the GSFC DAAC	EOC	NOLAN		604-CD-002-001 ECS Operations Concept for the ECS Project Part 2B - ECS Release B, 3/95, Section 5
46	All Missions	All DAACs	SMC	EBnet	Schedule & Status Information; Performance Information; and DAAC Coordination.	305-CD-019-001 Release A System Monitoring and Coordination Center Design Implementation Specification for the ECS Project, 7/95, Section 3

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Node	Mission	Source	Destination	Carrier/Media	Data Content	Reference
47	AM-1	ECS at the GSFC DAAC	ECS at the EDC DAAC	EBnet	MODIS Level 2 Data.	604-CD-002-001 ECS Operations Concept for the ECS Project Part 2B - ECS Release B, 3/95, Section 5
48	AM-1	ECS at the GSFC DAAC	ECS at the NSIDC DAAC	EBnet	MODIS Level 2 Data.	604-CD-002-001 ECS Operations Concept for the ECS Project Part 2B - ECS Release B, 3/95, Section 5
49					Not Assigned	
50	AM-1	ECS at the GSFC DAAC	GSFC V0 DAAC	NSI	Data Requests & Coordination.	604-CD-002-001 ECS Operations Concept for the ECS Project Part 2B - ECS Release B, 3/95, Section 5
51	All Missions	ECS at the GSFC DAAC	Other Version-0 DAACs	EBnet	Inter DAAC and Cross DAAC Communications; Inter-Operability; and Data Transfer.	305-CD-014-001 Release A GSFC DAAC Design Specification for the ECS Project, 7/95, Section 3
52	AM-1	ECS at the GSFC DAAC	MODIS SCF	NSI	MODIS Algorithm Insertion Coordination and Test Results.	604-CD-002-001 ECS Operations Concept for the ECS Project Part 2B - ECS Release B, 3/95, Section 5
53	COLOR	ECS at the GSFC DAAC	COLOR SCF	NSI	COLOR Algorithm Insertion Coordination and Test Results.	604-CD-002-001 ECS Operations Concept for the ECS Project Part 2B - ECS Release B, 3/95, Section 5
54	AM-1	ECS at the GSFC DAAC	Other SCFs	NSI	Algorithm Insertion Coordination and Test Results.	305-CD-014-001 Release A GSFC DAAC Design Specification for the ECS Project, 7/95, Section 3
55	AM-1	ECS at the GSFC DAAC	NOAA ADC	EBnet	ECS Level 0-4 Products; and Coordination of Data Transfer.	219-CD-006-003 IRD Between the ECS and the NOAA ADC, 1/95, Section 3 604-CD-002-001 ECS Operations Concept for the ECS Project Part 2B - ECS Release B, 3/95, Section 5
56	TRMM	ECS at the MSFC DAAC	TSDIS	EBnet	PR & TMI Level-1A through Level-3 Data Products for Reprocessing; and SSM/I Ancillary/Correlative Data.	209-CD-007-002 ICD Between ECS and TSDIS, 5/95, Section 3,5
57	AM-1	ECS at the MSFC DAAC	MSFC V0 DAAC	NSI	Data Requests & Coordination.	305-CD-016-001 Release A MSFC DAAC Design Specification for the ECS Project, 7/95, Section 3

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Node	Mission	Source	Destination	Carrier/Media	Data Content	Reference
58	All Missions	ECS at the MSFC DAAC	Other Version-0 DAACs	EBnet	Inter DAAC and Cross DAAC Communications; Inter-Operability; and Data Transfer.	305-CD-016-001 Release A MSFC DAAC Design Specification for the ECS Project, 7/95, Section 3
59	AM-1	ECS at the MSFC DAAC	LIS SCF	NSI	LIS Algorithm Insertion Coordination and Test Results.	305-CD-016-001 Release A MSFC DAAC Design Specification for the ECS Project, 7/95, Section 3
60	AM-1	ECS at the MSFC DAAC	Other SCFs	NSI	Algorithm Insertion Coordination and Test Results.	222-TP-003-005 Release Content Description, 5/95, Section 10
60.1	AM-1	ECS at the MSFC DAAC	NOAA ADC	EBnet	ECS Level 0-4 Products.	305-CD-016-001 Release A MSFC DAAC Design Specification for the ECS Project, 7/95, Section 3
61	Meteor	ECS at the LaRC DAAC	Meteor 3M-1 Source	TBD	Schedule; and Status Information.	604-CD-002-001 ECS Operations Concept for the ECS Project Part 2B - ECS Release B, 3/95, Section 5 305-CD-015-001 Release A LaRC DAAC Design Specification for the ECS Project, 7/95, Section 3
62	ACRIM	ECS at the LaRC DAAC	ACRIM Source	TBD	Schedule; and Status Information.	604-CD-002-001 ECS Operations Concept for the ECS Project Part 2B - ECS Release B, 3/95, Section 5 222-TP-003-005 Release Content Description, 5/95, Section 10
63	AM-1	ECS at the LaRC DAAC	EDOS	EBnet	Status; and Coordination Data.	604-CD-002-001 ECS Operations Concept for the ECS Project Part 2B - ECS Release B, 3/95, Section 5
64					Not Assigned	
65	AM-1	ECS at the LaRC DAAC	LaRC V0 DAAC	NSI	Data Requests & Coordination.	604-CD-002-001 ECS Operations Concept for the ECS Project Part 2B - ECS Release B, 3/95, Section 5
66	All Missions	ECS at the LaRC DAAC	Other Version-0 DAACs	EBnet	Inter DAAC and Cross DAAC Communications; Inter-Operability; and Data Transfer.	604-CD-002-001 ECS Operations Concept for the ECS Project Part 2B - ECS Release B, 3/95, Section 5

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Node	Mission	Source	Destination	Carrier/Media	Data Content	Reference
67	AM-1	ECS at the LaRC DAAC	MOPITT SCF	NSI	MOPITT Algorithm Insertion Coordination and Test Results.	604-CD-002-001 ECS Operations Concept for the ECS Project Part 2B - ECS Release B, 3/95, Section 3 305-CD-015-001 Release A LaRC DAAC Design Specification for the ECS Project, 7/95, Section 3
68	AM-1	ECS at the LaRC DAAC	MISR SCF	NSI	MISR Algorithm Insertion Coordination and Test Results.	604-CD-002-001 ECS Operations Concept for the ECS Project Part 2B - ECS Release B, 3/95, Section 5 305-CD-015-001 Release A LaRC DAAC Design Specification for the ECS Project, 7/95, Section 3
69	AM-1	ECS at the LaRC DAAC	CERES SCF	NSI	CERES Algorithm Insertion Coordination and Test Results.	604-CD-002-001 ECS Operations Concept for the ECS Project Part 2B - ECS Release B, 3/95, Section 5 305-CD-015-001 Release A LaRC DAAC Design Specification for the ECS Project, 7/95, Section 3
70	Meteor	ECS at the LaRC DAAC	SAGE III SCF	NSI	SAGE III Algorithm Insertion Coordination and Test Results.	604-CD-002-001 ECS Operations Concept for the ECS Project Part 2B - ECS Release B, 3/95, Section 5 222-TP-003-005 Release Content Description, 5/95, Section 5
71	ACRIM	ECS at the LaRC DAAC	ACRIM SCF	NSI	ACRIM Algorithm Insertion Coordination and Test Results.	604-CD-002-001 ECS Operations Concept for the ECS Project Part 2B - ECS Release B, 3/95, Section 5 222-TP-003-005 Release Content Description, 5/95, Section 5
72	AM-1	ECS at the LaRC DAAC	Other SCFs	NSI	Algorithm Insertion Coordination and Test Results.	604-CD-002-001 ECS Operations Concept for the ECS Project Part 2B - ECS Release B, 3/95, Section 5 222-TP-003-005 Release Content Description 5/95 Section 5

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Node	Mission	Source	Destination	Carrier/Media	Data Content	Reference
73	AM-1	ECS at the LaRC DAAC	NOAA ADC	EBnet	Coordination of Data Transfer.	219-CD-006-003 IRD Between the ECS and the NOAA ADC, 1/95, Section 3 604-CD-002-001 ECS Operations Concept for the ECS Project Part 2B - ECS Release B, 3/95, Section 5
73.1	AM-1	ECS at the EDC DAAC	Aster ICC	NSI	Planning; Scheduling; Status; and Coordination.	222-TP-003-005 Release Content Description, 5/95, Section 5
74	Landsat-7	ECS at the EDC DAAC	Landsat GDPS	Local Network/Internet	Data Transfer Acknowledgment	222-TP-003-005 Release Content Description, 5/95, Section 10
75	AM-1	ECS at the EDC DAAC	EDOS	EBnet	Status; and Coordination Data.	222-TP-003-005 Release Content Description, 5/95, Section 5
75.1	AM-1	ECS at the EDC DAAC	ECS at the GSFC DAAC	EBnet	Data Requests & Coordination.	305-CD-014-001 Release A GSFC DAAC Design Specification for the ECS Project, 7/95, Section 3
76	AM-1	ECS at the EDC DAAC	Aster GDS	NSI	Algorithm Insertion Coordination; DAR Dialog; ECS Ancillary & Correlative Data; ASTER Product Request & Status; and User Data Search & Order Dialog.	222-TP-003-005 Release Content Description, 5/95, Section 5
77	All Missions	ECS at the EDC DAAC	Other Version-0 DAACs	EBnet	Inter DAAC and Cross DAAC Communications; Inter-Operability; and Data Transfer.	194-219-SE1-004 IRD Between ECS and the Version 0 System, 6/94, Section 3
78	AM-1	ECS at the EDC DAAC	MODIS SCF	NSI	MODIS Algorithm Insertion Coordination and Test Results.	222-TP-003-005 Release Content Description, 5/95, Section 5
79	AM-1	ECS at the EDC DAAC	ASTER SCF	NSI	ASTER Algorithm Insertion Coordination and Test Results.	222-TP-003-005 Release Content Description, 5/95, Section 5
80	AM-1	ECS at the EDC DAAC	Other SCFs	NSI	Algorithm Insertion Coordination and Test Results.	222-TP-003-005 Release Content Description, 5/95, Section 5
81	AM-1	ECS at the EDC DAAC	NOAA ADC	EBnet	Coordination of Data Transfer.	222-TP-003-005 Release Content Description, 5/95, Section 5

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Node	Mission	Source	Destination	Carrier/Media	Data Content	Reference
82	ADEOS II	ECS at the JPL DAAC	ADEOS II GPS	TBD	Schedule; and Status Information.	604-CD-002-001 ECS Operations Concept for the ECS Project Part 2B - ECS Release B, 3/95, Section 5
83	Radar ALT	ECS at the JPL DAAC	Radar ALT Source	TBD	Schedule; and Status Information.	604-CD-002-001 ECS Operations Concept for the ECS Project Part 2B - ECS Release B, 3/95, Section 5
84	All Missions	ECS at the JPL DAAC	Other Version-0 DAACs	EBnet	Inter DAAC and Cross DAAC Communications; Inter-Operability; and Data Transfer.	194-219-SE1-004 IRD Between ECS and the Version 0 System, 6/94, Section 3
85	ADEOS-II	ECS at the JPL DAAC	SeaWinds SCF	NSI	SeaWinds Algorithm Insertion Coordination and Test Results.	604-CD-002-001 ECS Operations Concept for the ECS Project Part 2B - ECS Release B, 3/95, Section 5
86	Radar ALT	ECS at the JPL DAAC	DFA & MR SCF	NSI	DFA & MR Algorithm Insertion Coordination and Test Results.	604-CD-002-001 ECS Operations Concept for the ECS Project Part 2B - ECS Release B, 3/95, Section 5 209-CD-005-001 ICD Between ECS and the SCFs, 7/95, Section 3
87	All Missions	ECS at the JPL DAAC	Other SCFs	NSI	Algorithm Insertion Coordination and Test Results.	209-CD-005-001 ICD Between ECS and the SCFs, 7/95, Section 3
88	ADEOS II RADAR ALT	ECS at the JPL DAAC	NOAA ADC	EBnet	Schedule; and Status Information.	219-CD-006-003 IRD Between the ECS and the NOAA ADC, 1/95, Section 3
89	ADEOS II	ECS at the JPL DAAC	National Ice Center	EBnet	Data Requests & Coordination.	TBD
89.1	AM-1	ECS at the NSIDC DAAC	ECS at the GSFC DAAC	EBnet	Data Requests & Coordination.	604-CD-002-001 ECS Operations Concept for the ECS Project Part 2B - ECS Release B, 3/95, Section 5 305-CD-014-001 Release A GSFC DAAC Design Specification for the ECS Project, 7/95, Section 3
90	All Missions	ECS at the NSIDC DAAC	Other Version-0 DAACs	NSI	Inter DAAC and Cross DAAC Communications; Inter-Operability; and Data Transfer.	194-219-SE1-004 IRD Between ECS and the Version 0 System, 6/94, Section 3
91	All Missions	ECS at the NSIDC DAAC	Other SCFs	NSI	Algorithm Insertion Coordination and Test Results.	209-CD-005-001 ICD Between ECS and the SCFs, 7/95, Section 3

Table 7-1. ECS Release B Interfaces (10 of 16)

Node	Mission	Source	Destination	Carrier/Media	Data Content	Reference
91.1	AM-1	ECS at the NSIDC DAAC	NOAA ADC	EBnet	ECS Level 0-4 Products.	219-CD-006-003 IRD Between the ECS and the NOAA ADC, 1/95, Section 3
92	All Missions	ECS at the ORNL DAAC	Other Version-0 DAACs	NSI	Inter DAAC and Cross DAAC Communications; Inter-Operability; and Data Transfer.	194-219-SE1-004 IRD Between ECS and the Version 0 System, 6/94, Section 3
93	All Missions	ECS at the ORNL DAAC	Other SCFs	NSI	Algorithm Insertion Coordination and Test Results.	209-CD-005-001 ICD Between ECS and the SCFs, 7/95, Section 3
93.1	AM-1	ECS at the ORNL DAAC	NOAA ADC	EBnet	ECS Level 0-4 Products.	219-CD-006-003 IRD Between the ECS and the NOAA ADC, 1/95, Section 3
94	All Missions	ECS at the ASF DAAC	Alaska SAR Facility	NSI	Data Requests & Coordination.	222-TP-003-005 Release Content Description, 5/95, Section 10
95	All Missions	ECS at the ASF DAAC	Other Version-0 DAACs	NSI	Inter DAAC and Cross DAAC Communications; Inter-Operability; and Data Transfer.	194-219-SE1-004 IRD Between ECS and the Version 0 System, 6/94, Section 3
96	All Missions	ECS at the ASF DAAC	Other SCFs	NSI	Algorithm Insertion Coordination and Test Results.	209-CD-005-001 ICD Between ECS and the SCFs, 7/95, Section 3
96.1	AM-1	ECS at the ASF DAAC	NOAA ADC	EBnet	ECS Level 0-4 Products.	219-CD-006-003 IRD Between the ECS and the NOAA ADC, 1/95, Section 3
97	All Missions	ECS at the ASF DAAC	National Ice Center	NSI	Data Requests & Coordination.	604-CD-002-001 ECS Operations Concept for the ECS Project Part 2B - ECS Release B, 3/95, Section 5
98					Not Assigned	
99					Not Assigned	
100					Not Assigned	
101	AM-1	ASTER GDS	ECS at the EDC DAAC	Digital Tape; & NSI	DAR Dialog; Level 1A&1B Data (Digital Tape); Product Status; and User Data Search & Order Dialog.	604-CD-002-001 ECS Operations Concept for the ECS Project Part 2B - ECS Release B, 3/95, Section 5 222-TP-003-005 Release Content Description, 5/95, Section 10 209-CD-002-01 ICD Between ECS and ASTER Ground Data Systems, 11/94, Section 3

Table 7-1. ECS Release B Interfaces (11 of 16)

Node	Mission	Source	Destination	Carrier/Media	Data Content	Reference
102	AM-1	GSFC V0 DAAC	ECS at the GSFC DAAC	NSI	TOMS Ozone and Migration Data.	305-CD-014-001 Release A GSFC DAAC Design Specification for the ECS Project, 7/95, Section 3 305-CD-014-001 Release A GSFC DAAC Design Specification for the ECS Project, 7/95, Section 3
103	AM-1	MSFC V0 DAAC	ECS at the MSFC DAAC	NSI	SSM/I; GPCP; and Migration Data.	194-219-SE1-004 IRD Between ECS and the Version 0 System, 6/94, Section 3 305-CD-016-001 Release A MSFC DAAC Design Specification for the ECS Project, 7/95, Section 3
104	AM-1	LaRC V0 DAAC	ECS at the LaRC DAAC	NSI	SAGE Aerosol; ISCCP; and Version-0 Migration Data.	194-219-SE1-004 IRD Between ECS and the Version 0 System, 6/94, Section 3 305-CD-014-001 Release A LaRC DAAC Design Specification for the ECS Project, 7/95, Section 3
105	All Missions	Alaska SAR Facility	ECS at the ASF DAAC	NSI, High Density Digital Tape & Photos	ERS-1, JERS-1, ERS-2 & RADAR SAT Data Products for Delivery to ECS Users.	222-TP-003-005 Release Content Description, 5/95, Section 10
106	All Missions	Other Version-0 DAACs	ECS at the GSFC DAAC	EBnet	Inter DAAC and Cross DAAC Communications; Inter-Operability; and Data Transfer.	305-CD-014-001 Release A GSFC DAAC Design Specification for the ECS Project, 7/95, Section 3 194-219-SE1-004 IRD Between ECS and the Version 0 System, 6/94, Section 3
107	All Missions	Other Version-0 DAACs	ECS at the MSFC DAAC	EBnet	Inter DAAC and Cross DAAC Communications; Inter-Operability; and Data Transfer.	194-219-SE1-004 IRD Between ECS and the Version 0 System, 6/94, Section 3
108	All Missions	Other Version-0 DAACs	ECS at the LaRC DAAC	EBnet	Inter DAAC and Cross DAAC Communications; Inter-Operability; and Data Transfer.	194-219-SE1-004 IRD Between ECS and the Version 0 System, 6/94, Section 3
109	All Missions	Other Version-0 DAACs	ECS at the EDC DAAC	EBnet	Inter DAAC and Cross DAAC Communications; Inter-Operability; and Data Transfer.	194-219-SE1-004 IRD Between ECS and the Version 0 System, 6/94, Section 3

Table 7-1. ECS Release B Interfaces (12 of 16)

Node	Mission	Source	Destination	Carrier/Media	Data Content	Reference
110	All Missions	Other Version-0 DAACs	ECS at the JPL DAAC	EBnet	Inter DAAC and Cross DAAC Communications; Inter-Operability; and Data Transfer.	194-219-SE1-004 IRD Between ECS and the Version 0 System, 6/94, Section 3
111	All Missions	Other Version-0 DAACs	ECS at the NSIDC DAAC	EBnet	Inter DAAC and Cross DAAC Communications; Inter-Operability; and Data Transfer.	194-219-SE1-004 IRD Between ECS and the Version 0 System, 6/94, Section 3
112	All Missions	Other Version-0 DAACs	ECS at the ORNL DAAC	EBnet	Inter DAAC and Cross DAAC Communications; Inter-Operability; and Data Transfer.	194-219-SE1-004 IRD Between ECS and the Version 0 System, 6/94, Section 3
113	All Missions	Other Version-0 DAACs	ECS at the ASF DAAC	EBnet	Inter DAAC and Cross DAAC Communications; Inter-Operability; and Data Transfer.	194-219-SE1-004 IRD Between ECS and the Version 0 System, 6/94, Section 3
113.1	AM-1	MOPITT SCF	EOC	NSI	MOPITT Instrument software loads.	209-CD-005-001 ICD Between ECS and the SCFs, 7/95, Section 3
114	AM-1	MOPITT SCF	ECS at the LaRC DAAC	NSI	MOPITT Algorithms & Test Data; and Production Quality Results.	209-CD-005-001 ICD Between ECS and the SCFs, 7/95, Section 3 305-CD-005-001 Science and Communication Development Office Design for Release A Overview for the ECS Project
114.1	AM-1	MISR SCF	EOC	NSI	MISR Instrument software loads.	209-CD-005-001 ICD Between ECS and the SCFs, 7/95, Section 3
115	AM-1	MISR SCF	ECS at the LaRC DAAC	NSI	MISR Algorithms & Test Data; and Production Quality Results.	209-CD-005-001 ICD Between ECS and the SCFs, 7/95, Section 3
115.1	AM-1	CERES SCF	EOC	NSI	CERES Instrument software loads.	209-CD-005-001 ICD Between ECS and the SCFs, 7/95, Section 3
116	AM-1	CERES SCF	ECS at the LaRC DAAC	NSI	CERES Algorithms & Test Data; and Production Quality Results.	209-CD-005-001 ICD Between ECS and the SCFs, 7/95, Section 3
116.1	AM-1	MODIS SCF	EOC	NSI	MODIS Instrument software loads.	209-CD-005-001 ICD Between ECS and the SCFs, 7/95, Section 3

Table 7-1. ECS Release B Interfaces (13 of 16)

Node	Mission	Source	Destination	Carrier/Media	Data Content	Reference
117	AM-1	MODIS SCF	ECS at the GSFC DAAC	NSI	MODIS Algorithms & Test Data; and Production Quality Results.	604-CD-002-001 ECS Operations Concept for the ECS Project Part 2B - ECS Release B 3/95 Section 5 209-CD-005-001 ICD Between ECS and the SCFs, 7/95, Section 3
118	AM-1	MODIS SCF	ECS at the EDC DAAC	NSI	MODIS Algorithms and Test Data.	604-CD-002-001 ECS Operations Concept for the ECS Project Part 2B - ECS Release B, 3/95, Section 5 209-CD-005-001 ICD Between ECS and the SCFs, 7/95, Section 3
118.1	AM-1	ASTER SCF	EOC	NSI	ASTER Instrument software loads.	209-CD-005-001 ICD Between ECS and the SCFs, 7/95, Section 3
119	AM-1	ASTER SCF	ECS at the EDC DAAC	NSI	ASTER Algorithms & Test Data; and Production Quality Results.	604-CD-002-001 ECS Operations Concept for the ECS Project Part 2B - ECS Release B, 3/95, Section 5 209-CD-005-001 ICD Between ECS and the SCFs, 7/95, Section 3
120	TRMM	LIS SCF	ECS at the MSFC DAAC	NSI	LIS Algorithms and Test Data.	604-CD-002-001 ECS Operations Concept for the ECS Project Part 2B - ECS Release B, 3/95, Section 5 209-CD-005-001 ICD Between ECS and the SCFs, 7/95, Section 3
121	COLOR	COLOR SCF	ECS at the GSFC DAAC	NSI	COLOR Algorithms & Test Data; and Production Quality Results.	604-CD-002-001 ECS Operations Concept for the ECS Project Part 2B - ECS Release B, 3/95, Section 5 209-CD-005-001 ICD Between ECS and the SCFs, 7/95, Section 3
122	ADEOS-II	SeaWinds SCF	ECS at the JPL DAAC	NSI	SeaWinds Algorithms and Test Data.	604-CD-002-001 ECS Operations Concept for the ECS Project Part 2B - ECS Release B, 3/95, Section 5 209-CD-005-001 ICD Between ECS and the SCFs, 7/95, Section 3

Table 7-1. ECS Release B Interfaces (14 of 16)

Node	Mission	Source	Destination	Carrier/Media	Data Content	Reference
123	Meteor	SAGE III SCF	ECS at the LaRC DAAC	NSI	SAGE III Algorithms and Test Result Data.	604-CD-002-001 ECS Operations Concept for the ECS Project Part 2B - ECS Release B, 3/95 Section 5 209-CD-005-001 ICD Between ECS and the SCFs, 7/95, Section 3
124	Radar ALT	DFA & MR SCF	ECS at the JPL DAAC	NSI	DFA & MR Algorithms & Test Data; and Production Quality Results.	604-CD-002-001 ECS Operations Concept for the ECS Project Part 2B - ECS Release B, 3/95, Section 5 209-CD-005-001 ICD Between ECS and the SCFs, 7/95, Section 3
125	ACRIM	ACRIM SCF	ECS at the LaRC DAAC	NSI	ACRIM Algorithms and Test Result Data.	604-CD-002-001 ECS Operations Concept for the ECS Project Part 2B - ECS Release B, 3/95, Section 5 209-CD-005-001 ICD Between ECS and the SCFs, 7/95, Section 3
126	AM-1	Other SCFs	EOC	NSI	Instrument software loads.	209-CD-005-001 ICD Between ECS and the SCFs, 7/95, Section 3
127	AM-1	Other SCFs	ECS at the GSFC DAAC	NSI	Algorithms.	604-CD-002-001 ECS Operations Concept for the ECS Project Part 2B - ECS Release B, 3/95, Section 5 305-CD-014-001 Release A GSFC DAAC Design Specification for the ECS Project, 7/95, Section 3
128	AM-1	Other SCFs	ECS at the MSFC DAAC	NSI	Algorithms.	604-CD-002-001 ECS Operations Concept for the ECS Project Part 2B - ECS Release B, 3/95, Section 5 209-CD-005-001 ICD Between ECS and the SCFs, 7/95, Section 3
129	AM-1	Other SCFs	ECS at the LaRC DAAC	NSI	Algorithms.	604-CD-002-001 ECS Operations Concept for the ECS Project Part 2B - ECS Release B, 3/95, Section 5 209-CD-005-001 ICD Between ECS and the SCFs, 7/95, Section 3

Table 7-1. ECS Release B Interfaces (15 of 16)

Node	Mission	Source	Destination	Carrier/Media	Data Content	Reference
130	AM-1	Other SCFs	ECS at the EDC DAAC	NSI	Algorithms.	604-CD-002-001 ECS Operations Concept for the ECS Project Part 2B - ECS Release B, 3/95, Section 5 209-CD-005-001 ICD Between ECS and the SCFs, 7/95, Section 3
131	AM-1	Other SCFs	ECS at the JPL DAAC	NSI	Algorithms.	604-CD-002-001 ECS Operations Concept for the ECS Project Part 2B - ECS Release B, 3/95, Section 5 209-CD-005-001 ICD Between ECS and the SCFs, 7/95, Section 3
132	AM-1	Other SCFs	ECS at the NSIDC DAAC	NSI	Algorithms.	604-CD-002-001 ECS Operations Concept for the ECS Project Part 2B - ECS Release B, 3/95, Section 5 209-CD-005-001 ICD Between ECS and the SCFs, 7/95, Section 3
133	AM-1	Other SCFs	ECS at the ORNL DAAC	NSI	Algorithms.	604-CD-002-001 ECS Operations Concept for the ECS Project Part 2B - ECS Release B, 3/95, Section 5 209-CD-005-001 ICD Between ECS and the SCFs, 7/95, Section 3
134	AM-1	Other SCFs	ECS at the ASF DAAC	NSI	Algorithms.	604-CD-002-001 ECS Operations Concept for the ECS Project Part 2B - ECS Release B, 3/95, Section 5 209-CD-005-001 ICD Between ECS and the SCFs, 7/95, Section 3
135	AM-1	NOAA ADC	ECS at the GSFC DAAC	EBnet	ECS Product Requests; and Ancillary & Correlative Data.	219-CD-006-003 IRD Between the ECS and the NOAA ADC, 1/95, Section 3 604-CD-002-001 ECS Operations Concept for the ECS Project Part 2B - ECS Release B, 3/95, Section 5

Table 7-1. ECS Release B Interfaces (16 of 16)

Node	Mission	Source	Destination	Carrier/Media	Data Content	Reference
135.1	AM-1	NOAA ADC	ECS at the MSFC DAAC	EBnet	ECS Product Requests; and Ancillary & Correlative Data.	219-CD-006-003 IRD Between the ECS and the NOAA ADC, 1/95, Section 3 305-CD-016-001 Release A MSFC DAAC Design Specification for the ECS Project, 7/95, Section 3
136	AM-1	NOAA ADC	ECS at the LaRC DAAC	EBnet	ECS Product Requests; and Ancillary & Correlative Data.	219-CD-006-003 IRD Between the ECS and the NOAA ADC, 1/95, Section 3 305-CD-015-001 Release A LaRC DAAC Design Specification for the ECS Project, 7/95, Section 3
137	AM-1	NOAA ADC	ECS at the EDC DAAC	EBnet	ECS Product Requests; and Ancillary & Correlative Data.	219-CD-006-003 IRD Between the ECS and the NOAA ADC, 1/95, Section 3
138	ADEOS II	NOAA ADC	ECS at the JPL DAAC	EBnet	Ice Mapping; and Numeric Weather Prediction Model Data; ECS Product Requests; and Ancillary & Correlative Data.	219-CD-006-003 IRD Between the ECS and the NOAA ADC, 1/95, Section 3
138.1	AM-1	NOAA ADC	ECS at the NSIDC DAAC	EBnet	ECS Product Requests; and Ancillary & Correlative Data.	219-CD-006-003 IRD Between the ECS and the NOAA ADC, 1/95, Section 3
138.2	All Missions	NOAA ADC	ECS at the ORNL DAAC	EBnet	ECS Product Requests; and Ancillary & Correlative Data.	219-CD-006-003 IRD Between the ECS and the NOAA ADC, 1/95, Section 3
138.3	AM-1	NOAA ADC	ECS at the ASF DAAC	EBnet	ECS Product Requests; and Ancillary & Correlative Data.	219-CD-006-003 IRD Between the ECS and the NOAA ADC, 1/95, Section 3
139	ADEOS II	National Ice Center	ECS at the JPL DAAC	EBnet	Ice Maps; and Ancillary & Correlative Data.	TBD
140	All Missions	National Ice Center	ECS at the ASF DAAC	EBnet	Ice Maps; and Ancillary & Correlative Data.	604-CD-002-001 ECS Operations Concept for the ECS Project Part 2B - ECS Release B, 3/95, Section 5
141	All Missions	ECS DAACs	SEDAC	EBnet	Inter DAAC and Cross DAAC Communications; Inter-Operability; and Data Transfer.	TBD
142	All Missions	SEDAC	ECS DAACs	EBnet	Inter DAAC and Cross DAAC Communications; Inter-Operability; and Data Transfer.	TBD
143	Landsat-7	Landsat-7 IGSs	ECS at the EDC DAAC	Tape or Disk	IGS Inventory Meta Data; and IGS Browse Data.	209-CD-013-001 ICD Between ECS and Landsat-7, 7/95, Section 3

7.2.1 TRMM Support

Acceptance testing of Release B establishes that newly incorporated ECS enhancements do not compromise ongoing TRMM operational support. Therefore, acceptance testing will include the re-verification of certain ECS features needed to support TRMM.

These features are: the ingest and archive processing of Level-1 through Level-3 of Precipitation Radar (PR), TRMM Microwave Imager (TMI), and Visible Infrared Sensor (VIRS) instrument data; and TRMM Ground Verification (GV) data transmitted from TSDIS, which is a production system provided by the TRMM project. ECS provides for the storage of TRMM data. PR and TMI data is archived at the MSFC DAAC and VIRS at the GSFC DAAC. Additionally, ECS provides the production facilities for Level 1 and higher level processing for two other instruments of opportunity on TRMM: Clouds and Earth's Radiant Energy System (CERES) and Lightning Imaging Scanner (LIS), at the LaRC and MSFC DAACs respectively. ECS provides the data archive for these data as well. The ECS GSFC DAAC provides the TSDIS with Environmental Monitoring Center (EMC) Ancillary/Correlative data, and VIRS Level-1A through Level-3 data products for reprocessing. The ECS MSFC DAAC provides TSDIS with Special Sensor for Microwave/Imaging (SSM/I) Ancillary/Correlative data, and PR and TMI Level-1A through Level-3 data products for reprocessing. ECS also provides data search, order and distribution services to science users for data stored in the archives from all five instruments.

7.2.2 AM-1 Support

Release B provides an end-to-end system that incorporates features specified in the ECS F&PRS needed to meet AM-1 mission requirements. The AM-1 mission requirements, whose implementation are verified during acceptance testing, relate in a significant way to flight operations at the EOC and instrument data operations at the DAACs.

Table 7-2. ECS Release B Enhancements (1 of 2)

SITE	Release A Capabilities	New Release B Capabilities Deployed at Each Site
SMC	System Performance Monitoring & Analysis; WAN Management; and System Coordination.	SMC Services Extended to ASF, JPL, NSIDC, ORNL & SEDAC; and Interoperability with ASTER GDS.
GSFC	TRMM Mission Support; VIRS Data Ingest, Archive & Distribution; Ingest Ancillary Data; AM-1 Interface Testing; AM-1 MODIS Science Software I&T; V0 Data Migration & Interoperability; TOMS Ozone Data Ingest and Archive; and System Resource Management.	AM-1 Mission Support; MODIS Level-0 Data Ingest; MODIS Levels 1A, 1B, 2, 3 & 4 Production and Distribution; MODIS Levels 1A, 1B & 2 Archive; COLOR Science Software I&T; COLOR Level-0 Ingest; COLOR Level 1-3 Production, Archive & Distribution; Interoperability with ASTER GDS; Interoperability with New DAACs; and DAS Levels 2-4 Production, Archive and Distribution
LaRC	TRMM Mission Support; TRMM CERES Data Ingest, Production, Archive & Distribution; V0 Data Migration & Interoperability; AM-1 Interface Testing; NOAA Ancillary Data Ingest; TRMM & AM-1 CERES, and MISR & MOPITT Science Software I&T; SAGE Aerosol & Ozone Data, and ISCCP Data Ingest and Archive; and System Resources Management.	AM-1 Mission Support; AM-1 CERES, MISR & MOPITT Level-0 Data Ingest; AM-1 CERES, MISR & MOPITT Level 1-3 Production, Archive and Distribution; METEOR SAGE III Science Software I&T; SAGE III Level-0 Ingest; SAGE III Level 1-2 Production, Archive & Distribution; ACRIM Science Software I&T; ACRIM Level-0 Ingest; ACRIM Level 1A Production, Archive & Distribution; Interoperability with ASTER GDS; and Interoperability with New DAACs.

Table 7-2. ECS Release B Enhancements (2 of 2)

SITE	Release A Capabilities	New Release B Capabilities Deployed at Each Site
MSFC	TRMM Mission Support; LIS Level-0 Data Ingest, Production, Archive & Distribution; V0 Data Migration & Interoperability; SSM/I & GPCP Ingest & Archive; PR, TMI & GV Data Ingest, Archive & Distribution; LIS Science Software I&T; and System Resource Management.	Inter-Operability with ASTER GDS; and Interoperability with New DAACs.
EDC	Landsat-7 Interface Testing; Landsat-7 Level-0R Data Ingest; ASTER/MODIS Science Software I&T; Ingest and Storage of Landsat-7 Metadata and Browse Data; Ancillary Data Ingest; and System Resource Management.	AM-1 Mission Support; Landsat-7 Support; ASTER Level 1A & 1B Data Ingest; ASTER Level 2 Production, Archive & Distribution; MODIS Level 2-4 Ingest; MODIS Level 3 Production, Archive & Distribution; Landsat-7 Data Archive; Landsat-7 Data Access & Ordering Support; Inter-Operability with ASTER GDS; Interoperability with New DAACs; and V0 Data Migration & Interoperability.
ASF	Not Deployed.	Interface to the Alaska SAR Archive for the Access & Distribution of Level 0, 1 -3 ERS-1, JERS-1, ERS-2, and RADAR SAT Data; Archive of Selected ERS-1, JERS-1, ERS-2, and RADAR SAT Level 1&2 Data; Inter-Operability with ASTER GDS; Interoperability with Other DAACs; V0 Data Migration & Interoperability; and System Resource Management.
JPL	Not Deployed.	ADEOS II SeaWinds Science Software I&T; SeaWinds Level-0 Data Ingest; SeaWinds Level 1B & 2 Production, Archive & Distribution (not included in current contract); Non-Redundant AMSR Level-2 Ingest; RADAR ALT DFA Science Software I&T; DFA Level-0 Ingest; DFA Level 1-4 Production Archive & Distribution; RADAR ALT MR Science Software I&T, MR Level 1B Production Archive & Distribution; Inter-Operability with ASTER GDS; Interoperability with Other DAACs; V0 Data Migration & Interoperability; and System Resource Management.
NSIDC	Not Deployed.	AM-1 Mission Support; MODIS Level 2 Data Ingest; MODIS Level 3 Production, Archive & Distribution; Inter-Operability with ASTER GDS; Interoperability with Other DAACs; V0 Data Migration & Interoperability; and System Resource Management.
ORNL	Not Deployed.	Inter-Operability with ASTER GDS; Interoperability with Other DAACs; V0 Data Interoperability; and Limited System Resource Management.
SEDAC	ECS provides software only - SEDAC integrates.	Interoperability with Other DAACs (ECS provides software only - SEDAC integrates)
EOC	AM-1 Testing; IST Toolkit Delivery; Instrument Software Dumps; ASTER ICC, SCF, NCC, EDOS, and FDF Interface Testing; and System Resource Management.	AM-1 Mission Support; Full AM-1 EOC Capability Including: Planning & Scheduling; Command Management & Execution; Telemetry Processing & Analysis; Data Management; and User Interface Support.

Release B support includes the processing and distribution of instrument data from a complement of five AM-1 instruments. These instruments are Advanced Spaceborne Thermal Emission and Reflection Radiometer (ASTER); Clouds and Earth's Radiant Energy System (CERES); Multi-

Imaging SpectroRadiometer (MISR); Moderate-Resolution Imaging SpectroRadiometer (MODIS); and Measurements Of Pollution In The Troposphere (MOPITT).

EOC	Acceptance testing at the EOC includes the verification of the command and control interfaces that must be operational to support AM-1 launch. This includes EOC planning, scheduling, command, control and monitoring of the AM-1 spacecraft; and also verify that the complete set of ECS functions allocated to Release B meets those requirements needed to support AM-1 mission operations. This includes verifying that the requirements for all features needed to support Release B objectives for spacecraft operations and control, scheduling, data operations, information management and archive, science processing, user interfaces, networks, and system management are met.
ASTER	Acceptance testing includes the verification of data and information management interfaces to support the processing of ASTER instrument data. This includes the receipt of ASTER level-1 data on magnetic tape at EDC, the production and distribution of level-2 by EDC, and the receipt of level-2&3 data via communication lines at other DAACs from the ASTER GDS.
CERES	Acceptance testing includes the verification of data and information management interfaces to support the processing of CERES instrument data. This includes the receipt of CERES level-0 data; and the production, archive, and distribution of levels 1, 2 & 3 by LaRC.
MISR	Acceptance testing includes the verification of data and information management interfaces to support the processing of MISR instrument data. This includes the receipt of MISR level-0 data; and the production, archive, and distribution of levels 1, 2 & 3 by LaRC.
MODIS	Acceptance testing includes the verification of data and information management interfaces to support the processing of MODIS instrument data. This includes the receipt of MODIS level-0 data; production, archive and distribution of levels 1A, 1B & 2 data; and production and distribution of level 3 & 4 data by GSFC. It includes the ingest of levels 2-4; and the production, archive, and distribution of level 3 data by EDC. It also includes the ingest of level 2; and the production, archive, and distribution of level 3 data by NSIDC.
MOPITT	Acceptance testing includes the verification of data and information management interfaces to support the processing of MOPITT instrument data. This includes the receipt of MOPITT level-0 data; and the production, archive, and distribution of levels 1, 2 & 3 by LaRC.

7.2.3 Landsat-7 Support

Acceptance testing includes the verification of ECS interfaces with elements of the Landsat-7 ground support system needed for data operations. The ECS interfaces with the Landsat-7 system elements include the Mission Management Office (MMO), International Ground Stations (IGS), and the Ground Data Processing System (GDPS). The GDPS, in turn, is composed of the Landsat-7 Processing System (LPS) and the Image Assessment System (IAS). The ECS interfaces are those needed for: the receipt of product cost information and exchange of registration service and system management status from the MMO; the receipt of inventory and

browse data from the IGS; the receipt and storage of Landsat-7 level-0R data (view-able image data with radiometric and geometric information appended but not applied), and metadata and browse data from the LPS; and the receipt of calibration data and metadata from the IAS. Interfaces needed for data search, order and distribution services to Landsat-7 data users are tested as part of Release B.

7.2.4 COLOR Support

Acceptance testing includes the verification of data and information management interfaces to support the processing of COLOR instrument data. This includes the ingest of COLOR level 0 data; and the production, archive and distribution of levels 1-3 by GSFC.

7.2.5 ADEOS II - SeaWinds Support

Acceptance testing includes the verification of data and information management interfaces to support the processing of ADEOS II SeaWinds instrument data. This includes the ingest of SeaWinds level 0 data; non-redundant Advanced Microwave Scanning Radiometer (AMSR) level 2 ingest; and production, archive and distribution of levels 1B & 2 data by JPL.

7.2.6 RADAR ALT - DFA and MR Support

Acceptance testing includes the verification of data and information management interfaces to support the processing of RADAR ALT Dual Frequency Altimeter (DFA) and Microwave Radiometer (MR) instrument data. This includes the ingest of DFA and MR level 0 data; and production, archive and distribution of DFA level 1 - 4 and MR level 1B data by JPL.

7.2.7 ACRIMSAT Support

Acceptance testing includes the verification of data and information management interfaces to support the processing of Active Cavity Radiometer Irradiance Monitor (ACRIM) instrument data. This includes the ingest of ACRIM level-0 data; and the production, archive, and distribution of level 1A data by LaRC.

7.2.8 METEOR - SAGE III Support

Acceptance testing includes the verification of data and information management interfaces to support the processing of Stratospheric Aerosol and Gas Experiment III (SAGE III) instrument data. This includes the ingest of SAGE III level-0 data; and the production, archive, and distribution of levels 1 & 2 data by LaRC.

7.2.9 Alaska SAR Facility Support

ECS is tested to verify its ability to meet requirements for the access and distribution of processed data archived in the Alaska SAR Facility. This testing includes the access and distribution of levels 0-3 ERS-1, JERS-1 ERS-2, and RADARSAT data. Testing also includes ECS' ability to archive and retrieve level 0 - 3 ERS-1, JERS-1, ERS-2, and RADAR ALT data that has been selected for access and distribution from the Alaska SAR Archive.

7.2.10 Data Assimilation Office Support

Acceptance testing includes the verification of data and information management interfaces to support the DAO in processing data from NOAA's National Meteorological Center (NMC), AM-1 instruments, the TRMM TMI instrument, the Defense Meteorological Satellite Program (DMSP) Special Sensor Microwave/Imaging (SSM/I) instrument, and the Advanced Earth Observing Satellite (ADEOS) NASA Scatterometer (NSCAT) instrument. This includes the ingest of NMC levels 1-3 data sets; and the production, archive, and distribution of DAO level 4 data by GSFC.

7.2.11 Version-0 Two-Way Inter-Operability

ECS is tested to verify two-way inter-operability with the Version-0 system and migration and/or access of Version 0 data archives.

7.2.12 ORNL and SEDAC Testing

Testing of ECS for ORNL and SEDAC differs from the testing done at the other DAACs.

In the case of ORNL, ECS is delivered and acceptance tested. The delivered ECS does not include archival hardware. Therefore, ECS may be hosted using an alternative archive and tested. To facilitate this, the test team may take a small archive to ORNL or remotely access such a resource at the EDF during acceptance testing. Details of this process are yet to be determined and will be addressed in the ORNL Volume of the Release B Acceptance Test Procedures document.

In SEDAC's case, ECS is delivered but not acceptance tested at the SEDAC site. SEDAC receives the source code after CSR and configures it for their application. The ECS implementation team provides installation and test consultation during the installation process. After installation, which extends beyond the period set aside for acceptance testing, SEDAC engages in an ECS inter-DAAC operational compatibility test outside the scope of the acceptance test process. During the Release B Acceptance Test, SEDAC's involvement is limited to its interfaces with the ECS system. Although SEDAC is only a limited participant in the overall ECS system test, all discrepancies noted by them is filed as NCRs and included in the ECS Release B Acceptance Test Report (DID 412).

7.3 Objectives & Capabilities Mapping to Test Sequences

Acceptance testing is conducted through the use of scenarios which are based on science, modeling, and operations scenarios documented in various ECS CDRLs and White Papers. These scenarios have been grouped into five major categories called: System Management, Push, Pull, Flight Operations, and End-to-End. The test objectives of each scenario group are defined in Sections 8 through 12 of this document.

The objectives and capabilities for each release are recorded in Table 10-1 of the Release Plan Content Description Technical for the ECS (222-TP-003-006) white paper. The Release B objectives and capabilities listed in Table 10-1 of that document were extracted and mapped into the five major scenario acceptance test groups as shown in the following Tables 7-3. In Table 7-3 references are made to paragraph numbers in this document where discussions of the test process for verifying Release B objectives or capabilities are found. Table 7-3 demonstrates how planned Release B objectives and capabilities are mapped to acceptance test sequences and ultimately to Level-3 requirements.

Table 7-3. Release B Objectives & Capabilities (1 of 6)

Release Plan Objectives & Capabilities	System Mgmt Group	Push Group	Pull Group	Flight Operations Group	End-to-End Group
TRMM Support of TRMM CERES & LIS Version 2 Science Software I&T		9.1.7, 9.2.8	10.2.1 - 5		
TRMM CERES & LIS Level 0 Ingest		9.1.1, 9.2.1			12.4.1, 12.4.2, 12.4.3
TRMM-LIS Version 1 Science Software I&T Support		9.2.8			
TRMM TSDIS Data Product Ingest		9.2.5, 9.3.5			12.4.2
TRMM CERES & LIS Data (L0) Ingest and Archive and Archive Services at 2 Sites (LaRC and MSFC)		9.1.1, 9.2.1			12.4.1,12.4.3
TRMM data (L1-L4, ancillary etc.) Ingest and Archive services at 3 sites (GSFC, MSFC, LaRC)		9.1.2, 9.2.2, 9.3.2			12.4.1 - 3
Full PGS Toolkit Support for TRMM Data Processing (CERES, LIS)		9.1.1, 9.2.1			
TRMM (CERES, LIS) Version 2 Science Software I&T Support		9.1.7, 9.2.8			
Test Support for TRMM End-to-End Processing					12.4.1, 12.4.2, 12.4.3
Ancillary Data Ingest, Validation, Reformatting, and Regridding for TRMM		9.1.1, 9.2.1			12.4.1, 12.4.3

Table 7-3. Release B Objectives & Capabilities (2 of 6)

Release Plan Objectives & Capabilities	System Mgmt Group	Push Group	Pull Group	Flight Operations Group	End-to-End Group
TRMM-CERES Version 1 Science Software I&T Support		9.1.7			
TRMM-CERES/LIS Data Processing		9.1.1, 9.1.4, 9.2.1, 9.2.4			12.4.1, 12.4.3
Full PGS Toolkit Support TRMM Data		9.1.7, 9.2.8, 9.3.8			
TSDIS/ECS(MSFC) Data Transfer		9.2.5			12.4.2
TSDIS/ECS(GSFC) Data Transfer		9.3.5			12.4.2
AM-1 Support to EOS AM-1 Version 2 Science Software I&T		9.1.7, 9.3.8, 9.4.8, 9.6.6	10.2.1 - 5		
Support EOS AM1 Operations	8.1.8, 8.2.1, 8.2.2, 8.6.1	9.1.1, 9.1.2, 9.1.4 - 9, 9.3.1, 9.3.4, 9.3.6 10 9.4.1, 9.4.2, 9.4.4 - 10, 9.6.1, 9.6.3 - 8		11.1.1 - 4, 11.2.1, 11.3.1, 11.3.2	12.2.1 - 3
Full System Integration and Completion of Performance Analysis Required for AM-1 Launch	8.5.1 - 3			11.1.1 - 4; 11.2.1, 11.3.1, 11.3.2	
Provide Full Functionality of all Services required for the AM-1 Spacecraft	8.3.1 - 3	9.1.1 - 8, 9.3.1 - 10, 9.4.1 - 10, 9.6.1 - 8		11.1.1 - 4 11.2.1, 11.3.1, 11.3.2	12.2.1 - 3
Online Archive of TBD PB (Aggregate)			10.1.2		
AM-1 Beta and Version 1 Science Software I&T Support		9.1.7, 9.3.8, 9.4.8, 9.6.6			

Table 7-3. Release B Objectives & Capabilities (3 of 6)

Release Plan Objectives & Capabilities	System Mgmt Group	Push Group	Pull Group	Flight Operations Group	End-to-End Group
AM-1 (cont'd) EOS AM - 1 Version 2 Science Software I&T Support		9.1.7, 9.3.8, 9.4.8, 9.6.6			
Testbed for EOS AM 1 Flight Operations				11.1.1 - 4, 11.2.1, 11.3.1, 11.3.2	
FOS Interface Components Needed to Send and Receive Data To/From EDOS and EBnet	8.1.8			11.2.1	12.2.2 & 3
FOS Infrastructure Components like User Interface Shell, Interprocess Communication, Database tables, Communication Interface with Externals (e.g., NCC, FDF, EBnet, EDOS)	8.1.6, 8.1.8			11.1.1 - 4; 11.2.1	12.2.1 - 3
Inclusion of the Decision Support System				11.2.1	
FOS Core Functionality and Integration of All FOS Services				11.1.1 - 4, 11.2.1, 11.3.1, 11.3.2	
ASTER DARs and Interoperable with ASTER IMS	8.1.8	9.4.6		11.1.4, 11.2.1	12.3.1 - 5
Landsat-7 Support Landsat 7 Operations	8.1, 8.2.1, 8.2.2, 8.6.1	9.4.2, 9.4.4, 9.4.5, 9.4.7 10			12.6.5
Landsat LPS/ECS (EDC) Data Transfers		9.4.1, 9.4.2, 9.4.4, 9.4.5, 9.4.7 - 10			12.6.5
Landsat LOR Data Ingest		9.4.2			12.6.5

Table 7-3. Release B Objectives & Capabilities (4 of 6)

Release Plan Objectives & Capabilities	System Mgmt Group	Push Group	Pull Group	Flight Operations Group	End-to-End Group
<u>Landsat-7</u> (cont'd) Landsat 7 Data Access	8.6.1, 8.1.8		10.1.1 - 4		12.6.5
Landsat 7 Data Ingest and Archive Services at EDC		9.4.2			12.6.5
Landsat 7 Ordering Support			10.1.1 - 4		12.6.5
<u>COLOR</u> Support COLOR Operations	8.1, 8.2.1, 8.2.2, 8.6.1	9.3.1, 9.3.4, 9.3.6 - 10			12.6.1
SDPS/CSMS/FOS (all from formal track)			10.1.1 4,10.2.1 - 5 10.3.1, 10.3.2, 10.4.1 - 3		12.7.1, 12.7.2, 12.7.3
<u>Alaska SAR Facility</u> SAR Data Archive and Distribution at ASF		9.7.1	10.4.1		
Interoperability with CSA at ASF			10.4.1		
<u>Version-0</u> Version 0 Interoperability	8.1.8		10.1.3, 10.4.2		12.7.2 & 3
Migrate and/or Access V0 Data Archives	8.6.1	9.1.3, 9.2.3, 9.3.3, 9.4.3, 9.5.2, 9.6.2, 9.7.2, 9.8.1	10.1.3		
Two-way Interoperability with V0			10.1.3, 10.4.2		12.7.2, 12.7.3
<u>Algorithms</u> SCF/ECS Data Transfer (Algorithms, Algorithm Support Data)		9.1.7, 9.2.8, 9.3.8, 9.4.8, 9.5.6, 9.6.6			

Table 7-3. Release B Objectives & Capabilities (5 of 6)

Release Plan Objectives & Capabilities	System Mgmt Group	Push Group	Pull Group	Flight Operations Group	End-to-End Group
Algorithms (cont'd) Algorithm Integration Support		9.1.7, 9.2.8, 9.3.8, 9.4.8, 9.5.6, 9.6.6			
Algorithm Execution/Test Support		9.1.7, 9.2.8, 9.3.8, 9.4.8, 9.5.6, 9.6.6			
Algorithm-Development Support		9.1.7, 9.2.8, 9.3.8, 9.4.2, 9.5.6, 9.6.6			
General Objectives & Capabilities Basic Ingest Services at sites (GSFC, MSFC, EDC,LaRC,JPL, NSIDC)		9.1.1 -3, 9.1.6 - 10, 9.2.1 - 3, 9.2.5, 9.2.7 10, 9.3.1 - 3, 9.3.5, 9.3.7 10; 9.5.1, 9.5.2, 9.5.5 - 8, 9.6.1, 9.6.2, 9.6.5 - 8			12.4.1 - 4, 12.5.1 - 3, 12.6.1 - 3, 12.6.5 12.3.3
Information Management Services Available to CIESIN SEDAC	8.1.8		10.3.2		
Interoperable with CIESIN (ECS to CIESIN)			10.3.2		
On-line Archive of TBD TB (Aggregate)			10.1.2		
APIs for Information Management			10.1.2		
General Scientist Access			10.1.1- 4, 10.2.1 - 5, 10.3.1, 10.3.2, 10.4.1 - 3		12.3.5, 12.4.1, 12.4.3, 12.4.4, 12.5.1 - 3, 12.6.1 - 3
Client/Server Access			10.1.1		
Data Search/Access			10.3, 10.4		

Table 7-3. Release B Objectives & Capabilities (6 of 6)

Release Plan Objectives & Capabilities	System Mgmt Group	Push Group	Pull Group	Flight Operations Group	End-to-End Group
Coincident Data Search at Individual Sites			10.1.1 - 4, 10.2.1 - 5, 10.3.1, 10.3.2, 10.4.1 - 3		
On-line Browse/Data Visualization			10.1.1		
Basic SDPS Scheduling	8.3.1, 8.3.2, 8.3.3		10.1.1		12.1.2
Subscriptions for Distribution and Processing					12.3.1, 12.3.3, 12.4.4
DAR API		9.4.6			

7.4 Release B Test Environment

The Release B provides capabilities to eleven ECS sites. These sites are the EOC, SMC and the ECS GSFC DAAC located in Greenbelt, Maryland; the ECS LaRC DAAC in Hampton, Virginia; the ECS MSFC DAAC in Huntsville, Alabama; the ECS EDC DAAC in Sioux Falls, South Dakota; the ECS NSIDC DAAC in Boulder, Colorado; the ECS JPL DAAC in Pasadena, California; the ECS ORNL DAAC in Oak Ridge, Tennessee; the ECS ASF DAAC in Fairbanks, Alaska; and the Consortium for International Earth Science Information Network's (CIESIN) Socio-Economic Data and Applications Center (SEDAC), in Saginaw, Michigan. Detailed plans that include site coordination between ECS and existing site operations, and site platform layouts is addressed in the Release B Acceptance Test Procedures (DID 411/VE1) document, which is published prior to the ECS Release B Consent to Ship Review (CSR). All DAAC sites except the SEDAC site participate in the Release B acceptance test.

7.5 Release B Test Descriptions

The acceptance testing of Release B capabilities is divided into five major scenario groups: System Management, Push, Pull, Flight Operations, and End-to-End. These scenario groups identify-high level ECS functionality from a users and operations viewpoint. Each group is further sub-divided into scenarios that emulate the operations and user environment. Scenarios are further broken down into more manageable test sequences in which test cases that trace to Level-3 requirements are executed. Sections 8 through 12 describe the nature of each scenario, the test sequences within them, and their individual test cases.

All sites will not take part in the execution of all test sequences. Table 7-4 shows the test sequences that are executed at each site. The Sequence Number in Table 7-4 refers to the paragraph number in this document where the test sequence is described.

Detailed traceability of individual scenarios, sequences, and test cases to Level-3 requirements are provided in The Verification Specification (DID 403/VE1).

7.6 Release B Test Schedule

Our current plans call for conducting Release B acceptance testing during the three month period following the Release B CSR. The plan calls for conducting acceptance tests in four sessions. The first session occurs during the first three week period following CSR at SMC, EOC, GSFC, and LaRC. The second session occurs the following three weeks at EDC, MSFC and ORNL. The third session occurs the following three weeks at NSIDC, JPL and ASF, with SMC and EOC remaining involved throughout the second and third sessions to participate where mutual testing is required. The final session occurs during the remaining three weeks period. During the final three weeks an All-Up End-to-End session occurs with all ten sites participating.

The final detailed schedule is coordinated with each DAAC site, to minimize disruption to ongoing operations (if any) at that DAAC. The final schedule includes dates, times and durations for all formal acceptance testing that occur at each DAAC site.

The order in which testing activities is conducted during each session is shown in Figure 7.2.

Table 7-4. Test Sequences Versus ECS Sites (1 of 4)

Test Sequence Number & Title	S M C	E O C	G S F C	M S F C	L a R C	N S I D C	J P L	A S F	O R N L	E D C	S E D A C
8.1.1 M&O Procedures Review	X	X	X	X	X	X	X	X	X	X	
8.1.2 Site Start-up	X	X	X	X	X	X	X	X	X	X	
8.1.3 Site Operations	X	X	X	X	X	X	X	X	X	X	
8.1.4 Site Shutdown/Recovery	X	X	X	X	X	X	X	X	X	X	
8.1.5 Site Maintenance	X	X	X	X	X	X	X	X	X	X	
8.1.6 Site Data/Metadata/Information Management	X	X	X	X	X	X	X	X	X	X	
8.1.7 Facilities Interfaces	X	X	X	X	X	X	X	X	X	X	
8.2.1 Upgrade/Evolvability	X	X	X	X	X	X	X	X	X	X	
8.2.2 Enhancements	X	X	X	X	X	X	X	X	X	X	
8.3.1 Schedule Generation	X	X	X	X	X	X	X	X	X	X	
8.3.2 Schedule Adjudication	X	X	X	X	X	X	X	X	X	X	
8.3.3 Schedule Coordination	X	X	X	X	X	X	X	X	X	X	
8.4.1 Configuration Management	X	X	X	X	X	X	X	X	X	X	
8.4.2 Maintenance Management	X	X	X	X	X	X	X	X	X	X	
8.4.3 Inventory Management	X	X	X	X	X	X	X	X	X	X	
8.4.4 Logistics Management	X	X	X	X	X	X	X	X	X	X	
8.4.5 Training Management	X	X	X	X	X	X	X	X	X	X	
8.5.1 Metrics	X	X	X	X	X	X	X	X	X	X	
8.5.2 Performance Testing	X	X	X	X	X	X	X	X	X	X	
8.5.3 Performance Monitoring and Analysis	X	X	X	X	X	X	X	X	X	X	

Table 7-4. Test Sequences Versus ECS Sites (2 of 4)

Test Sequence Number & Title	S M C	E O C	G S F C	M S F C	L a R C	N S I D C	J P L	A S F	O R N L	E D C	S E D A C
8.6.1 Network Management	X	X	X	X	X	X	X	X	X	X	
8.6.2 Fault Management	X	X	X	X	X	X	X	X	X	X	
8.6.3 Security Management	X	X	X	X	X	X	X	X	X	X	
8.7.1 Accounting and Accountability	X	X	X	X	X	X	X	X	X	X	
8.7.2 Report Generation	X	X	X	X	X	X	X	X	X	X	
8.7.3 Policies and Procedures Management	X	X	X	X	X	X	X	X	X	X	
9.1.1 ECS at the LaRC DAAC Level 0 Data Receipt					X						
9.1.2 ECS at the LaRC DAAC Ancillary Data Receipt from the NOAA ADC					X						
9.1.3 ECS at the LaRC DAAC Version 0 Data Receipt					X						
9.1.4 ECS at the LaRC DAAC Reprocessing Request Receipt and Processing					X						
9.1.5 ECS at the LaRC DAAC On-Demand Processing					X						
9.1.6 ECS at the LaRC DAAC Non-Standard Product Receipt					X						
9.1.7 ECS at the LaRC DAAC Sci. Data Production Software Updates Receipt					X						
9.1.8 ECS at the LaRC DAAC Maintain Processing Plans and Schedules					X						
9.1.9 ECS at the LaRC DAAC Maintain Calibration Parameters					X						
9.2.1 ECS at the MSFC DAAC Level 0 Data Receipt				X							
9.2.2 ECS at the MSFC DAAC Level 1A-3 Data Receipt from the TSDIS				X							
9.2.3 ECS at the MSFC DAAC Version 0 Data Receipt				X							
9.2.4 ECS at the MSFC DAAC Reprocessing Request Receipt and Processing				X							
9.2.5 ECS at the MSFC DAAC TSDIS Reprocessing Support				X							
9.2.6 ECS at the MSFC DAAC On-Demand Processing				X							
9.2.7 ECS at the MSFC DAAC Non-Standard Product Receipt				X							
9.2.8 ECS at the MSFC DAAC Sci. Data Production Software Updates Receipt				X							
9.2.9 ECS at the MSFC DAAC Maintain Processing Plan and Schedules				X							
9.3.1 ECS at the GSFC DAAC Level 0 Data Receipt			X								
9.3.2 ECS at the GSFC DAAC Level 1A-3 Data Receipt from the TSDIS			X								
9.3.3 ECS at the GSFC DAAC Ancillary Data Receipt from the NOAA ADC			X								
9.3.4 ECS at the GSFC DAAC Version 0 Data Receipt			X								
9.3.5 ECS at the GSFC DAAC Reprocessing Request Receipt and Process			X								
9.3.6 ECS at the GSFC DAAC TSDIS Reprocessing Support			X								
9.3.7 ECS at the GSFC DAAC On-Demand Processing			X								
9.3.8 ECS at the GSFC DAAC Non-Standard Product Receipt			X								
9.3.9 ECS at the GSFC DAAC Sci. Data Production Software Updates Receipt			X								
9.3.10 ECS at the GSFC DAAC Maintain Processing Plan and Schedules			X								
9.3.11 ECS at the GSFC DAAC Maintain Calibration Parameters			X								
9.4.1 ECS at the EDC DAAC Level 0 Data Receipt										X	
9.4.2 ECS at the EDC DAAC Level 1A-4 Data Receipt										X	
9.4.3 ECS at the EDC DAAC Version 0 Data Receipt										X	
9.4.4 ECS at the EDC DAAC Reprocessing Request Receipt and Processing										X	
9.4.5 ECS at the EDC DAAC On-Demand Processing										X	
9.4.6 ECS at the EDC DAAC Data Acquisition Request Processing										X	
9.4.7 ECS at the EDC DAAC Non-Standard Product Receipt										X	
9.4.8 ECS at the EDC DAAC Sci. Data Production Software Updates Receipt										X	
9.4.9 ECS at the EDC DAAC Maintain Processing Plans and Schedules										X	
9.4.10 ECS at the EDC DAAC Maintain Calibration Parameters										X	

Table 7-4. Test Sequences Versus ECS Sites (3 of 4)

Test Sequence Number & Title	S M C	E O C	G S F C	M S F C	L a R C	N S I D C	J P L	A S F	O R N L	E D C	S E D A C
9.5.1 ECS at the JPL DAAC Level 0 Data Receipt							X				
9.5.2 ECS at the JPL DAAC V0 Data Receipt							X				
9.5.3 ECS at the JPL DAAC Reprocessing Request Receipt and Processing							X				
9.5.4 ECS at the JPL DAAC On-Demand Processing							X				
9.5.5 ECS at the JPL DAAC Non-Standard Product Receipt							X				
9.5.6 ECS at the JPL DAAC Science Data Production Software Updates Receipt							X				
9.5.7 ECS at the JPL DAAC Maintain SMC Processing Plans & Schedules							X				
Table 9.5.8 ECS at the JPL DAAC Maintain Calibration Parameters							X				
9.6.1 ECS at the NSIDC DAAC MODIS Level 2 Data Receipt						X					
9.6.2 ECS at the NSIDC DAAC Version 0 Data Receipt						X					
9.6.3 ECS at the NSIDC DAAC Reprocessing Request Receipt and Processing						X					
9.6.4 ECS at the NSIDC DAAC On-Demand Processing						X					
9.6.5 ECS at the NSIDC DAAC Non-Standard Product Receipt						X					
9.6.6 ECS at the NSIDC DAAC Sci. Data Production Software Updates Receipt						X					
9.6.7 ECS at the NSIDC DAAC Maintain Processing Plans and Schedules						X					
9.6.8 ECS at the NSIDC DAAC Maintain Calibration Parameters						X					
9.7.1 ECS at the ASF DAAC Data Archive							X				
9.7.2 ECS at the ASF DAAC V0 Data Receipt							X				
9.7.3 ECS at the ASF DAAC Maintain SMC Plans and Schedules							X				
9.8.1 ECS at the ORNL DAAC V0 Data Receipt								X			
9.8.2 ECS at the ORNL DAAC Maintain SMC Plans and Schedules								X			
10.1.1 New Science User			X	X	X	X	X	X	X	X	
10.1.2 Experienced Science User			X	X	X	X	X	X	X	X	
10.1.3 ECS/Version 0 (V0) System Interoperability			X	X	X	X	X	X	X	X	
10.1.4 EOSDIS Core System (ECS)/Affiliated Data Center (ADC)/Interoperability			X	X	X	X	X	X	X	X	
10.2.1 MSFC DAAC-SCF (LIS)				X							
10.2.2 LaRC DAAC-SCF's (ACRIM, CERES, MISR, MOPITT, and SAGE III)					X						
10.2.3 GSFC DAAC-SCF's (MODIS and COLOR)			X								
10.2.4 JPL DAAC-SCF's (SeaWinds and DFA)							X				
10.2.5 EDC DAAC-SCF's (MODIS and ASTER)										X	
10.3.1 Cross-DAAC			X	X	X	X	X	X	X	X	
10.3.2 CIESIN/SEDAC and NOAA ADC			X	X	X	X	X	X	X	X	X
10.4.1 ASF Instruments Product Data								X			
10.4.2 ASF/ECS V0 Interface								X			
10.4.3 ASF/ECS NOAA ADC Interface								X			
11.1.1 FOS Initialization		X									
11.1.2 Long-Term Planning		X									
11.1.3 Pre-Contact Planning		X									
11.1.4 Late Changes		X									
11.2.1 Real-Time Contact		X									
11.3.1 Telemetry Analysis		X									
11.3.2 FOS Performance		X									
12.1.1 Inter-Site Capabilities	X	X	X	X	X	X	X	X	X	X	X
12.1.2 Multi-Site System Management	X	X	X	X	X	X	X	X	X	X	X

Table 7-4. Test Sequences Versus ECS Sites (4 of 4)

Test Sequence Number & Title	S M C	E O C	G S F C	M S F C	L a R C	N S I D C	J P L	A S F	O R N L	E D C	S E D A C
12.2.1 AM-1 Planning and Scheduling	X	X	X	X	X	X	X	X	X	X	X
12.2.2 AM-1 Commanding		X									
12.2.3 Telemetry, Analysis, and Verification		X									
12.3.1 ASTER DAR Development	X	X								X	
12.3.2 ASTER DAR Flight Operations		X									
12.3.3 ASTER DAR Planning, Ingest, Archiving, Processing, and Distribution	X		X		X		X			X	
12.3.4 ASTER DAR Product Access	X		X							X	
12.4.1 LIS Planning, Ingest, Archiving, Processing, and Distribution	X		X	X							
12.4.2 TSDIS Products Ingest, Archiving, and Distribution	X		X	X							
12.4.3 CERES Planning, Ingest, Archiving, Processing, and Distribution	X		X	X	X					X	
12.4.4 MODIS Planning, Ingest, Archiving, Processing, and Distribution	X		X		X					X	
12.4.5 DAS Planning, Ingest, Archiving, Processing, and Distribution	X		X	X	X	X	X			X	
12.5.1 MISR & MOPITT Planning, Ingest, Archiving, Processing, & Distribution	X		X		X						
12.5.2 ACRIM Planning, Ingest, Archiving, Processing, and Distribution	X		X		X						
12.5.3 SAGE III Planning, Ingest, Archiving, Processing, and Distribution	X		X		X						
12.6.1 COLOR Planning, Ingest, Archiving, Processing, and Distribution	X		X		X						
12.6.2 SeaWinds Planning, Ingest, Archiving, Processing, and Distribution	X		X				X				
12.6.3 DFA and MR Planning, Ingest, Archiving, Processing, and Distribution	X		X				X				
12.6.4 SAR Products Search, Archiving, and Access	X							X			
12.6.5 Landsat 7 Data Ingest, Archiving, and Distribution Sequence	X									X	
12.7.1 Science Information			X		X					X	
12.7.2 On-Demand Processing			X					X	X		
12.7.3 ECS User Access of Non-Collocated Data			X	X	X	X	X	X	X	X	X
12.7.4 Non-ECS User Access of ECS Data			X								
12.8.1 Data Ingest, Data Server and Data Distribution Performance			X	X	X	X	X	X	X	X	X
12.8.2 System Response Time Performance			X	X	X	X	X	X	X	X	X
12.8.3 ECS Sizing, Evolution and Growth			X	X	X	X	X	X	X	X	X

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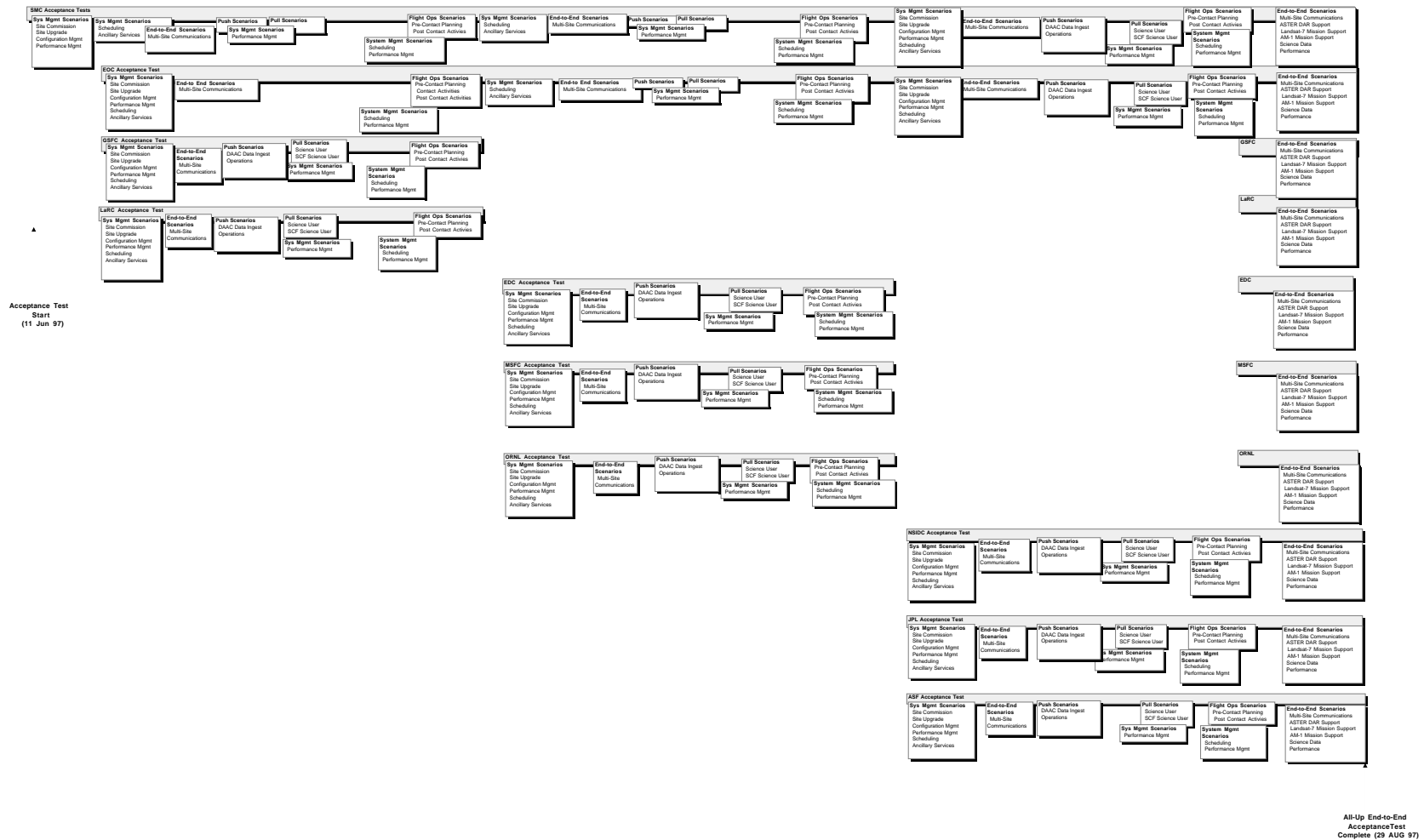


FIGURE 7-2. Release-B Acceptance Testing Activities by Site

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